

## CLEAN BAY BLUEPRINT

### Stormwater Pollution Prevention

Stormwater pollution is a major source of water pollution in California. It can cause declines in fisheries, disrupt habitats, and limit water recreation activities. Even more importantly, stormwater pollution poses a serious threat to the overall health of the ecosystem.

Common sources of pollutants from construction sites include: sediments from soil erosion; construction materials, stockpiles and waste (e.g., paint, solvents, concrete, drywall); and spilled oil, fuel, and other fluids from construction vehicles and heavy equipment.

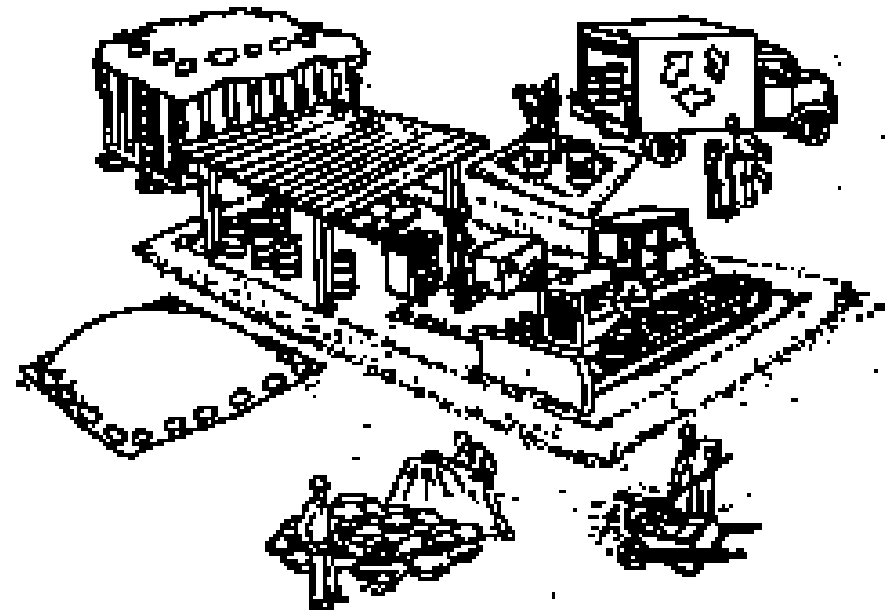
In San Jose, the storm drain system consists of gutters, storm drains, underground pipes, open channels, culverts and creeks. Storm drain systems are designed to drain directly to the Bay with no treatment.

San Jose and the other municipalities in the Bay Area are required by the Federal Clean Water Act to develop stormwater management programs that include requirements for construction activities. Your construc-

tion project will need to comply with local municipal requirements. If your construction activity will disturb one acre or more, you must also obtain insurance coverage under the General Construction Activity Permit issued by the State Water Resources Control Board.

This Clean Bay Blueprint is an introductory guide to stormwater quality control on construction sites. It contains several principles and techniques that you can use to help prevent stormwater pollution. The Bay Area Stormwater Management Agencies Association (BASMAA) and the City of San Jose have developed these guidelines as a resource for all general contractors, home builders, and subcontractors working on construction sites.

Employees should be trained and subcontractors informed about the stormwater requirements and their own responsibilities. The property owner and the contractor are responsible for all activities at your site, including activities by your subcontractors and employees.



## Useful Phone Numbers

Spill Response Agencies		
Dial 911 for Hazardous Materials Spills		
Santa Clara Valley Water District Environmental Compliance Division	(408) 265-2600	
Governor's Office of Emergency Services Warning Center	(800) 852-7550 (24 hours)	
City of San Jose Environmental Services Department Environmental Enforcement Division	(408) 945-3000	
Local Recyclers and Disposal Services		
Santa Clara Countywide Recycling Hotline Integrated Waste Management Division	1(800) 533-8414	
Local Pollution Control Agencies		
Santa Clara County Department of Environmental Health Hazardous Materials Compliance Division	(408) 918-3400	
Santa Clara Valley Water District	(408) 265-2600	
San Jose/Santa Clara Water Pollution Control Plant	(408) 945-5300	
City of San Jose		
<a href="http://www.sanjoseca.gov">http://www.sanjoseca.gov</a>		
Department of Planning, Building and Code Enforcement	(408) 535-7747	
Department of Public Works Grading Permits and Inspections	(408) 535-3555	
For more information on Stormwater requirements, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537, or San Jose's Environmental Enforcement Division at (408) 945-3000.		

## Material Storage and Spill Clean Up

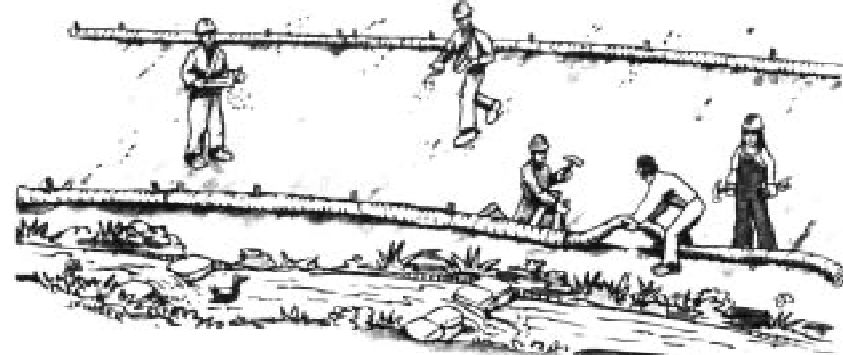
- ✓ Cover exposed piles of soil, construction materials and wastes with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- ✓ Build berms around storage areas to prevent contact with runoff.
- ✓ Store containers of paints, chemicals, solvents, and other hazardous materials in accordance with secondary containment regulations and under cover during rainy periods.
- ✓ Cover open dumpsters with plastic sheeting or a tarp during rainy weather. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.
- ✓ If a dumpster is leaking, contain and collect leaking material. Return the dumpster to the leasing company for repair or exchange.
- ✓ Sweep up spilled dry materials (for example cement, mortar, or fertilizer) immediately. Never attempt to "wash them away" with water, or bury them. Use only minimal water for dust control.
- ✓ Clean up liquid spills on paved or impermeable surfaces using "dry" cleanup methods (for example absorbent materials like cat litter, sand or rags). Have spill cleanup kits available.
- ✓ Clean up spills on dirt areas by digging up and properly disposing of the contaminated soil.

**Report significant spills to the appropriate spill response agencies immediately.**



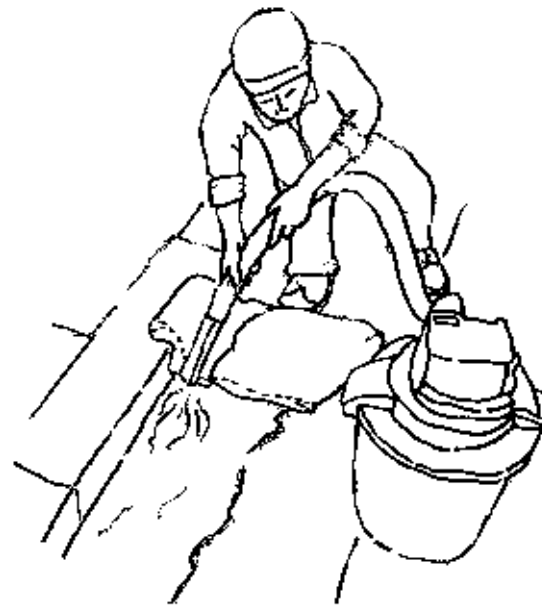
## Earth-Moving Activities and Erosion Control

- ✓ Avoid contaminating clean runoff from areas adjacent to your site by using berms and/or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams and/or berms, where appropriate.
- ✓ Construct diversion dikes and drainage swales to channel runoff around the site.
- ✓ Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.
- ✓ Plant vegetation on exposed slopes. Where replanting is not feasible, cover with erosion control blankets (for example mulch netting or matting of jute, straw, glass fiber or excelsior).
- ✓ Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them. Keep exposed stockpiles off of paved roadways, sidewalks and driveways.
- ✓ Protect drainage courses, creeks, or catch basins with backup measures such as silt fences and/or temporary drainage swales.
- ✓ Conduct routine inspections of all erosion and sediment control measures and repair when necessary. This is particularly critical before, during and immediately after rainstorms.
- ✓ Protect storm drain inlets from sediment-laden runoff. Storm drain inlet protection devices include barriers of burlap bags filled with *drain rock*, filter fabric fences, block and gravel filters, and excavated drop inlet sediment traps.
- ✓ Limit on-site construction routes and stabilize construction entrances. Prevent construction vehicles from tracking soil onto adjacent streets.
- ✓ Dry-sweep, where possible, to clean sediments from streets, driveways and paved areas on construction sites. If water must be used to flush pavement, collect runoff to settle out sediments and protect storm drain inlets.
- ✓ Prevent all debris, construction materials, soil, rock, etc. from being introduced into any storm drain or sanitary sewer structures.



## Roadwork and Pavement Construction

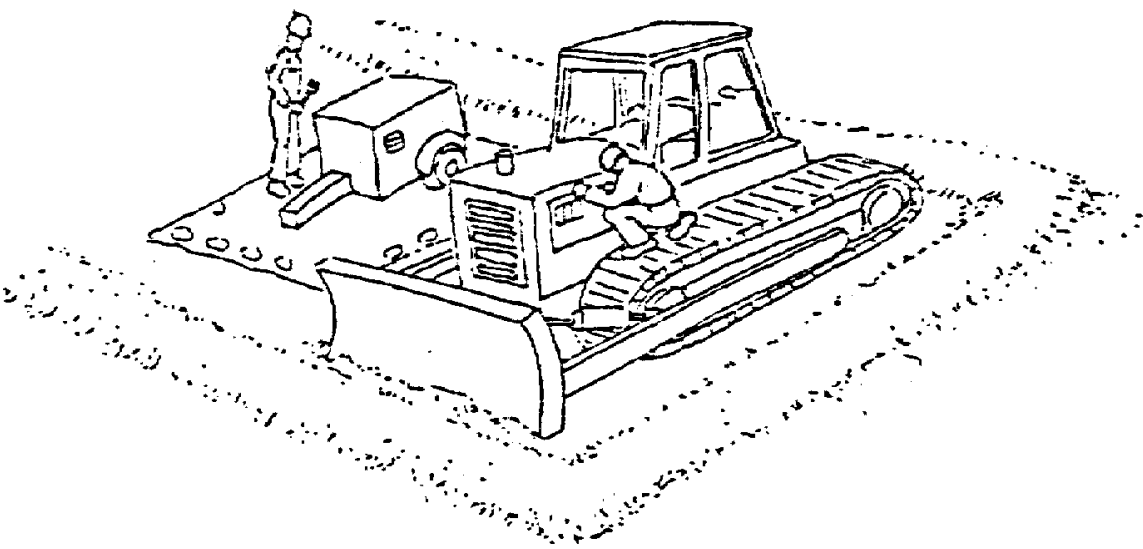
- ✓ Apply concrete, asphalt, and seal coat during dry weather to prevent unset paving material from washing away with stormwater runoff.
- ✓ Cover storm drain inlets and manholes when paving or applying seal coat, slurry seal, fog seal, etc.
- ✓ Always park paving machines over drip pans or absorbent materials, since they tend to drip continuously. Do not spray diesel fuel to prevent asphalt build up on equipment. Use alternatives, such as citrus-based products.
- ✓ Use as little water as possible when making saw-cuts in pavement. Contain the slurry by placing rock bags, or temporary berms as close to the saw-cuts as possible. Vacuum "wet", or allow slurry to dry and shovel.
- ✓ Wash down exposed aggregate concrete only when the wash water can:
  - (1) Flow onto a dirt area;
  - (2) Drain onto a bermed surface from which it can be pumped and disposed of properly; or
  - (3) Be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- ✓ **Never wash sweepings from exposed aggregate concrete into a street or storm drain.** Collect and return to aggregate base stockpile, or dispose with trash.



**Update pollution prevention measures as construction phases change or are completed.**

## Vehicle and Equipment Maintenance

- ✓ Maintain all vehicles and heavy equipment. Inspect frequently and repair leaks.
- ✓ Use drip pans or drop cloths to catch drips and spills if you must drain and replace motor oil, radiator coolant, or other fluids on-site. Collect all spent fluids, store in labeled separate containers, and recycle whenever possible. Keep all fuels, oils and lubricants within secondary containment.
- ✓ Designate specific areas of the construction site, well away from creeks or storm drain inlets, for auto and equipment parking and routine vehicle and equipment maintenance.
- ✓ Perform major maintenance, repair jobs and vehicle and equipment washing off-site when feasible, or in designated and controlled areas on-site.
- ✓ Wash vehicles at an appropriate off-site facility. If equipment must be washed on-site, just use water and **prevent water from entering the storm drain**. Do not use soaps, solvents, degreasers, or steam cleaning equipment. Direct wash water to an area that will not flow to any storm drain inlets. The waste wash water can evaporate and/or infiltrate within this designated area.
- ✓ Refuel vehicles and heavy equipment in one designated location on the site and **clean up spills immediately**.
- ✓ Oil, antifreeze, batteries, and tires should also be recycled. Please contact the County Household Hazardous Waste Program at (408) 299-7300 for assistance on how you may dispose of your hazardous wastes.



## Paints, Solvents and Adhesives

- ✓ Sweep up or collect non-hazardous paint chips and dust from dry stripping and sandblasting in plastic drop cloths and dispose of as trash. Dispose of chemical paint stripping residue and chips and dust from marine paints or paints containing lead or tributyl tin as hazardous waste.
- ✓ **Never clean brushes or rinse paint containers into a street, gutter, storm drain, or creek.**
- ✓ For water-based paints, paint out brushes to the maximum extent possible and rinse to a drain leading to the sanitary sewer (i.e., indoor plumbing). Dried latex paint may be disposed of in the trash.
- ✓ For oil-based paints, paint out brushes to the maximum extent possible, and filter and reuse thinners and solvents. Dispose of unusable thinners and residue as hazardous waste.
- ✓ Unwanted paint (that is not recycled), thinners, and sludges must be disposed of as hazardous waste.

**Have spill cleanup kits available.**



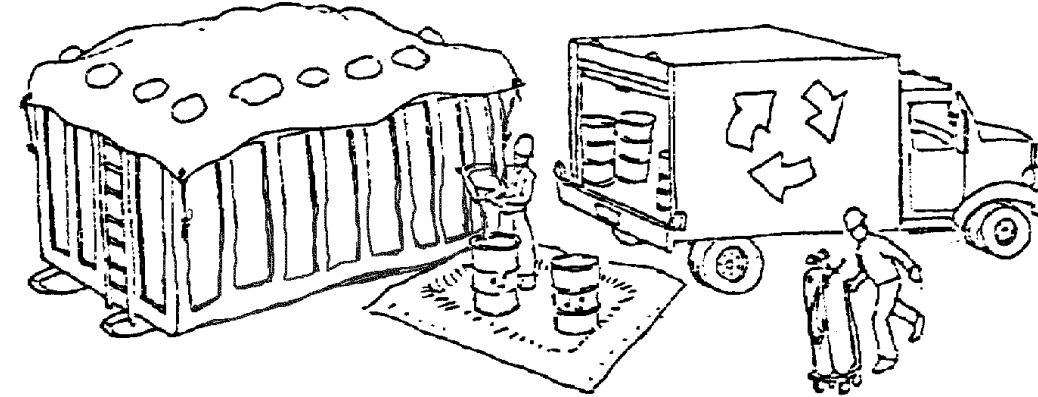
## Concrete, Cement and Mortars

- ✓ Avoid mixing excess amounts of fresh concrete or cement mortar on-site.
- ✓ Wash out concrete transit mixers only in designated wash-out areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Whenever possible, recycle washout by pumping back into mixers for reuse. **Never dispose of washout into the street, storm drains, drainage ditches, or creeks.**
- ✓ Whenever possible, return contents of mixer barrel to the yard for recycling. Dispose of small amounts of excess concrete, grout, and mortar in the trash.

**Call Environmental Enforcement at (408) 945-3000 before dewatering and/or pumping into storm or sanitary sewer systems.**

## Waste Disposal

- ✓ Keep pollutants off exposed surfaces. Place trash cans around the site to reduce litter. Dispose of non-hazardous construction wastes in covered dumpsters or recycling receptacles.
- ✓ Recycle leftover materials whenever possible. Materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires are recyclable.
- ✓ Recycle leftover construction and demolition materials whenever possible. Materials such as concrete, rock, asphalt, cleared vegetation, scrap metal, wood, carpet, drywall can be recycled. For a list of facilities that will accept these materials. <http://www.sjrecycles.org/business/cddd-certified-facilities.htm>
- ✓ Dispose of all wastes properly. Materials that cannot be reused or recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ✓ **Never throw or dispose of debris into channels, creeks or into wetland areas. Never store or leave debris in the street or near a creek where it may contact runoff.**
- ✓ Illegal dumping is a violation subject to a fine and/or time in jail. Be sure that trailers carrying your materials are covered during transit. If not, the hauler may be cited and fined.
- ✓ Do not dispose of plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drain inlets.
- ✓ Avoid disposal of plant material in trash dumpsters or mixing it with other wastes. Compost plant material or take it to a landfill or other facility that composts yard waste.
- ✓ Check with the Fire Department with questions on proper storage of hazardous materials.
- ✓ Protect all wastes from rainwater and runoff.



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